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Amendments To The Claims

This listing of claims will replace all prior versions, and listings of claims in the

application:

Claims 1 – 10 canceled

11. (New) A method and apparatus of out-band downloading a file from a web-site to a
storage of a targeted system comprising:

provide a user using web-browser of a system to accesses a web-page of a remote
web site, wherein said a web-page contains file download information, wherein file
downloading information includes the file name, the IP address of said remote web site,
and related information for downloading;

software modules of said a system obtain said file download information from
cached web pages of said a system;

said software modules of said a system sends the obtained file download
information to service software modules of a targeted system via communication network
through communication protocols;

said service modules of said a targeted system receives said file download
information and send a download request to said remote web site via communication
network through communication protocols; and

said service modules of said a targeted system receiving the download data file
stream from said a remote web-site directly without goes through said a system and write
received data file stream into assigned storage volume (file system).

12. (New) The claim 11, wherein

said communication network is Internet, Intranet, or LAN connected by
communication media and said communication protocols can be IP based or non IP based
protocols .

13. (New) The claim 11, wherein

said a system, said a targeted system are desktop, or laptop, or a wireless handheld device, or a server system; wherein said a remote web-site is a web server system;

14. (New) A method and apparatus of providing wireless device users to create and utilize web-based external storage system on a server comprises:

console support software of a server system provides each privileged user a web-browser based work environment and though web-browser of each privileged user's local system to perform tasks of partitioning the storage of said a server system into multiple volumes, perform tasks of creating each corresponding file system on top of each said volumes, and perform tasks of assigning said each file system to each wireless device; wherein, said tasks can be run concurrently in said each web-browser; wherein, said each user's local systems are connected to said a server system via a communication network through communication protocols;

said console support software provides each wireless device user a web-browser based work environment and through web-browser of wireless device to perform task of storing data of wireless device to said assigned file system of said a server system, perform task of out-band downloading desired file directly from any remote web-site into said assigned file system of said a server system, and perform tasks of retrieving data stored on said assigned file system of said a server system to said wireless device, and perform tasks of creating, copying, deleting, renaming, moving, and various file & file folder management operations over said assigned file system; wherein, said tasks can be run concurrently within said a web-browser; wherein, said wireless device are connected to said a server system and to said remote web-site via communication network through communication protocols.

15: (New) The claim 14 further includes a method of supporting of performing tasks of partitioning the storage of said a server system into multiple volumes that includes:

said console support software of said a server system sends storage device name, total size and related storage device information of said a server system to the web-browser of said privilege user's local system;

said console support software of said a server system provides privileged user through said web-browser to specify and input desired number of storage volumes/partitions and the size of each volumes/partitions for a said storage device; and further said inputted desired storage volume partition information are sent from web-browser to console support software of said a server system; and

said console support software of said a server system performs task of storage partition to divide said storage device into multiple small volumes according to said inputted desired storage volume partition information, and further perform task of creating file system on top of each said small storage volume.

16. (New) The claim 14, wherein to perform task of storing data of wireless device to said assigned file system of a said server further includes:

software module of a wireless device send data of said a wireless device to service software module of said a server system via communication network, and service software module of said a server system write received data to the assigned file system of external storage volume on said server; wherein,

said data could is a data file or message data; wherein

communication protocols used over communication network are IP or non-IP based protocols.

17. (New) The claim 14, wherein to perform tasks of retrieving data stored on said assigned file system of said a server system to said wireless device further includes:

service software of wireless device provides retrieving data file from assigned file system of said a server system via communication network; and

web-browser of wireless device provides retrieving data file from assigned file system of said a server system via communication network; wherein

said web browser can invoke the embedded video or audio multimedia data file, which stored on wireless' external storage volume (file system) located on said a server system.

18: (New) The claim 14, wherein to perform task of out-band downloading desired file directly from any remote web-site into said assigned file system of said a server further includes:

provide a user using web-browser of a wireless device to accesses a web-page of a remote web site, wherein said a web-page contains file download information, wherein file downloading information includes the file name, the IP address of said remote web site, and related information for downloading; wherein said a remote web-site is a web server system;

software modules of said a wireless device obtain said file download information from cached web pages of said a wireless device;

said software modules of said a wireless device sends the obtained file download information to service software modules of said a server system via communication network and through communication protocols;

said service modules of said a server system receives said file download information, and sends a download request to said remote web site via said communication network through communication protocols;

said service modules of said a server system receiving the download data file stream from said a remote web-site directly without goes through said a wireless device, and write receiving data file stream into said assigned file system (storage volume) on said a server system for said a wireless device.

19: (New) The claim 14, wherein to perform tasks of creating, copying, deleting, renaming, moving, and various file & file folder management operations over said assigned file system further include:

console support software of said a server system provides each wireless device user a web-browser based operating environment and through web-browser of wireless device to obtain file folder and file information on assigned file system of said a server system;

said console support software modules of said a server system provides each wireless device user a web-browser based operating environment and through web-browser of wireless device to select desired data management operations and send

information of desired operation to console support software modules of said a server system; and

said console support software modules of said a server system receives said information of desired data operation and performs desired operations on said assigned file system/storage volume of said a server system; and

wherein, said operations include creating, deleting, renaming, copying , moving and so forth over file and file folders/directories structure.

20: (New) The claim 14, wherein communication network further includes said communication network is Internet or Intranet or LAN; and said communication protocols are IP based or non-IP based protocols.

21: (New) The claim 14, wherein

where in said a server system configured with respect storage capacity to provide external storage for one or multiple wireless devices users; wherein said remote web-site is a web server system; wherein

said privileged user's local system is said a server system or any remote system; wherein said remote system can be a desktop, or a laptop, or a server system, or can be a handheld wireless device;

22: (New) A method and apparatus of provide web-based external storage for larger number of wireless devices by deploying the central controlled distributed scalable virtual system (CCDSVM) comprising:

A control system, one or multiple non-control systems, one or multiple wireless devices, and one or multiple console hosts are connected together via a communication network through communication protocols; wherein, said non-control system configured with storage to provide external storage for said wireless devices;

console support software coupled with web-server software of said control system provides each privileged user a web-browser based work environment and though web-browser of each privileged user's local console host to perform tasks of partitioning the storage of said each non-control system into multiple volumes, to perform tasks of

creating each corresponding file system on top of each said volumes, and to perform tasks of assigning said each file system to each wireless device;   wherein, said tasks can run concurrently in said each web-browser;

said console support software coupled with web-server software of said control system provides each wireless device user a web-browser based work environment and through web-browser of wireless device to perform task of storing data of wireless device to said assigned file system of said a server system, to perform task of out-band downloading desired file directly from any remote web-site into said assigned file system of said non-control system, and to perform tasks of retrieving data stored on said assigned file system of said non-control system to said wireless device, and to perform tasks of creating, copying, deleting, renaming, moving, and various file & file folder management operations over said assigned file system of said non-control system;   wherein, said tasks can be run concurrently within said a web-browser;

23. (New) The claim 22 wherein

Said communication network is Internet, Intranet, and LAN; and said communication protocols are IP-based or non-IP based protocols;

24. (New) The claim 22, wherein said control system and said a remote web-site is a server, or a desktop, or laptop system, or any device which is capable provide web-service; wherein said console host configured with web-browser, which could it be a server, a desktop or laptop system, or a wireless handheld device.

25. (New) The claim 22, wherein said console support software of control system provides each privileged user a web-browser based work environment and through web-browser of console host to perform tasks of partitioning the storage further includes steps of:

said console support software of said control system communicate with service software of non-control system to obtain storage device name, total size and related storage device information of said non-control system; and send obtained storage information to the web-browser of said privilege user's console host;

said console support software of said a server system provides privileged user through said web-browser to specify and input desired number of storage volumes/partitions and the size of each volumes/partitions for a said storage device of non-control system; and further said inputted desired storage volume partition information are sent from web-browser to console support software of said control system; and

said console support software of said control system transmit said desired storage volume partition information to service software of said non-control system; and said non-control system performs task of storage partition to divide said storage device into multiple small volumes according to said inputted desired storage volume partition information, and further perform task of creating file system on top of each said small storage volume.

26. (New) The claim 22, wherein to perform task of storing data of wireless device to said assigned file system of a said non-control server further includes:

software module of a wireless device send data of said a wireless device to service software module of said non-control system via communication network, and service software module of said non-control system write received data to the assigned file system of external storage volume on said non-control server; wherein,

said data could is a data file or message data; wherein

communication protocols used over communication network are IP or non-IP based protocols.

27. (New) The claim 14, wherein to perform tasks of retrieving data stored on said assigned file system of said con-control system to said wireless device further includes:

service software of wireless device provides retrieving data file from assigned file system of said non-control system via communication network; and

web-browser of wireless device provides retrieving data file from assigned file system of said non-control system via communication network; wherein

said web browser can invoke the embedded video or audio multimedia data file, which stored on wireless' external storage volume (file system) located on said non-control system.

28. (New) The claim 22, wherein to perform task of out-band downloading desired file directly from any remote web-site into said assigned file system of said non-control system further includes:

provide a user using web-browser of a wireless device to accesses a web-page of a remote web site, wherein said a web-page contains file download information, wherein file downloading information includes the file name, the IP address of said remote web site, and related information for downloading; wherein said a remote web-site is a web server system;

software modules of said a wireless device obtain said file download information from cached web pages of said a wireless device;

said software modules of said a wireless device sends the obtained file download information to service software modules of said a assigned non-control system via communication network and through communication protocols;

said service modules of said a non-control system receives said file download information, and sends a download request to said remote web site via said communication network through communication protocols;

said service modules of said a non-control system receiving the download data file stream from said a remote web-site directly without goes through said a wireless device, and write receiving data file stream into said assigned file system (storage volume) on said a non-control system for said a wireless device.

29: (New) The claim 22, wherein to perform tasks of creating, copying, deleting, renaming, moving, and various file & file folder management operations over said assigned file system further include:

console support software coupled with web-server software of said control system provides each wireless device user a web-browser based operating environment and

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through web-browser of wireless device to obtain file folder and file information on assigned file system of a non-control system;

said console support software modules of said control system provides each wireless device user a web-browser based operating environment and through web-browser of wireless device to select desired data management operations and send information of desired operation to console support software modules of said control system; and

said console support software modules of said control system receives and transmit said information of desired data operation to service software of said non-control system; and

said service software of non-control system performs desired operations on said assigned file system/storage volume of said non-control system; and

wherein, said operations include creating, deleting, renaming, copying , moving and so forth over file and file folders/directories structure.